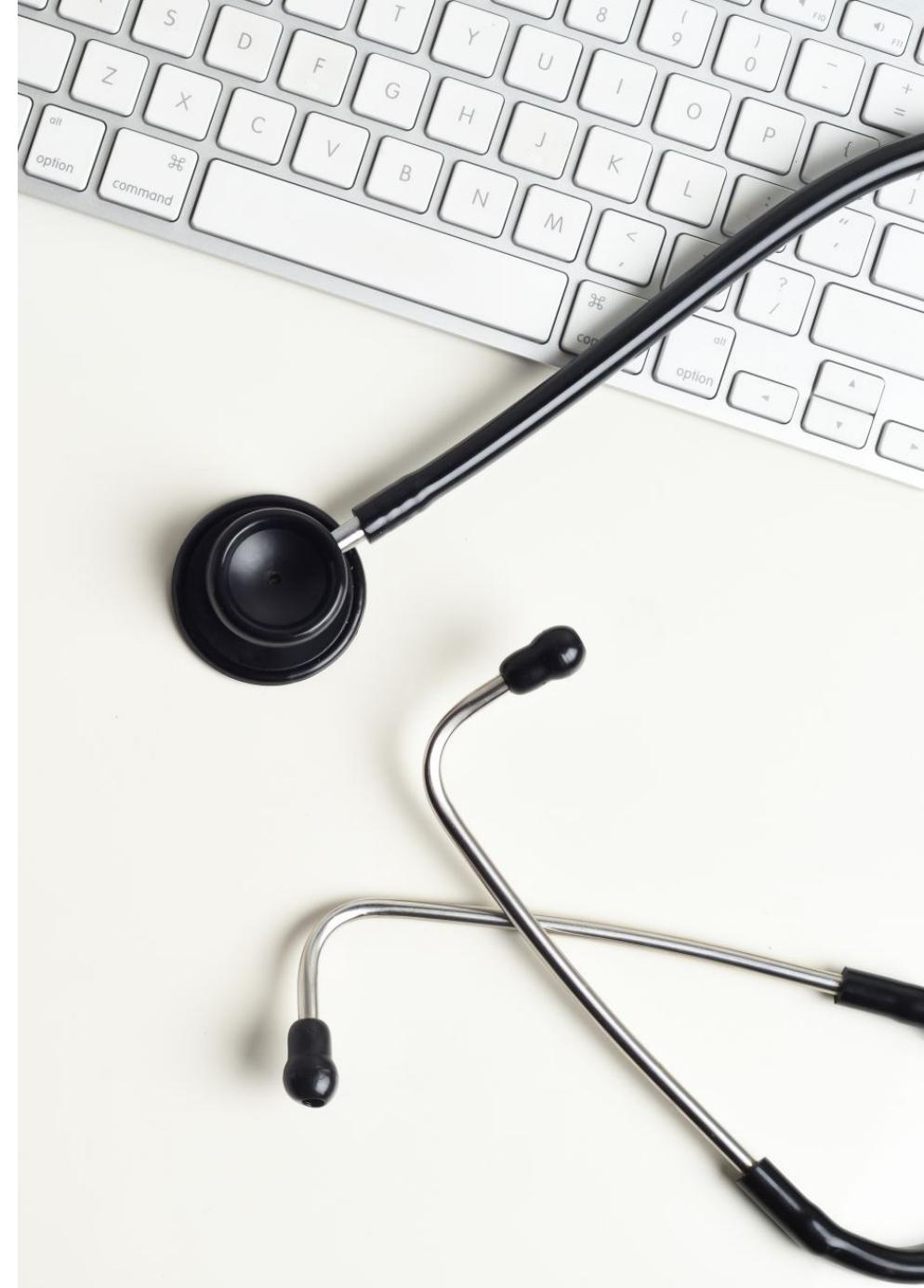


Introduction to R

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What is R

- Open-source programming language environment
- Used especially for **statistical** computing and **graphics**
- Free
- *Steep* learning curve
- Progressive

Install R & Rstudio

1. For R, download from
<https://cran.r-project.org>
2. Then also download
RStudio from
<https://rstudio.com>

Repository for this workshop

- https://github.com/adilzainal/IIUM_Biostatistic_workshop

The screenshot shows the GitHub repository page for 'IIUM_Biostatistic_workshop'. The repository has 1 branch and 0 tags. The main branch was last updated 8 minutes ago by user 'profjamal' with 50 commits. The commits list includes various R scripts and a PDF file, all uploaded or edited recently. The repository also features a 'Readme' file and a 'README.md' file. On the right side, there are sections for 'About', 'Releases', 'Packages', 'Contributors', and 'Languages', with 'R' being the primary language used at 100.0%.

Pull requests Issues Marketplace Explore

tistic_workshop

Pull requests Actions Projects Wiki Security Insights

main 1 branch 0 tags Go to file Add file Code

profjamal Add files via upload ... 040d0be 8 minutes ago 50 commits

.DS_Store Day 2 15 days ago

.RData edited 12 days ago

.Rhistory edited 12 days ago

EA2020 analytical V2.R Add files via upload 8 hours ago

EA2020 descriptive V2.R add 12 hours ago

EA2020-analytical notes.pdf Add files via upload 8 hours ago

EA2020-descriptive notes.pdf Add files via upload 8 hours ago

Intro to R.R Add files via upload 8 minutes ago

Linear regression.R Linear regression 20 days ago

MAZA_2WAYANOVA.R edited 7 days ago

MAZA_ANCOVA.R edited 7 days ago

MAZA_Logreg.R edited 7 days ago

MAZA_MANCOVA.R edited 7 days ago

MAZA_MANOVA.R edited 7 days ago

MAZA_MLR.R edited 7 days ago

MAZA_RMANOVA.R edited 7 days ago

README.md Create README.md 15 days ago

healthstatus6.csv Add files via upload 13 days ago

models.txt edited 7 days ago

About IIUM Biostatistic ...

Readme

Releases No releases published Create a new release

Packages No packages published Publish your first pack...

Contributors edreaidid Adilzainal profjamal

Languages R 100.0%

The screenshot shows the RStudio interface with the following components:

- Console pane:** Displays the R startup message and license information.
- Environment pane:** Shows the message "Environment is empty". A handwritten note "The objects will appear here" is overlaid on this area.
- Files pane:** Shows a file tree under "Documents > ~Academic > Courses Conducted > ~Biostatistics Workshop > Biostatistics with R > Introduction to R". A handwritten note "The graphics, packages, file directory" is overlaid on this area.

Console Output:

```
R version 4.0.3 (2020-10-10) -- "Bunny-Wunnies Freak Out"
Copyright (C) 2020 The R Foundation for Statistical Computing
Platform: x86_64-apple-darwin17.0 (64-bit)

R is free software and comes with ABSOLUTELY NO WARRANTY.
You are welcome to redistribute it under certain conditions.
Type 'license()' or 'licence()' for distribution details.

Natural language support but running in an English locale

R is a collaborative project with many contributors.
Type 'contributors()' for more information and
'citation()' on how to cite R or R packages in publications.

Type 'demo()' for some demos, 'help()' for on-line help, or
'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.
```

> |

Type your command here

Introduction to R - RStudio

Environment History Connections Tutorial

Import Dataset Global Environment

Environment is empty

The objects will appear here

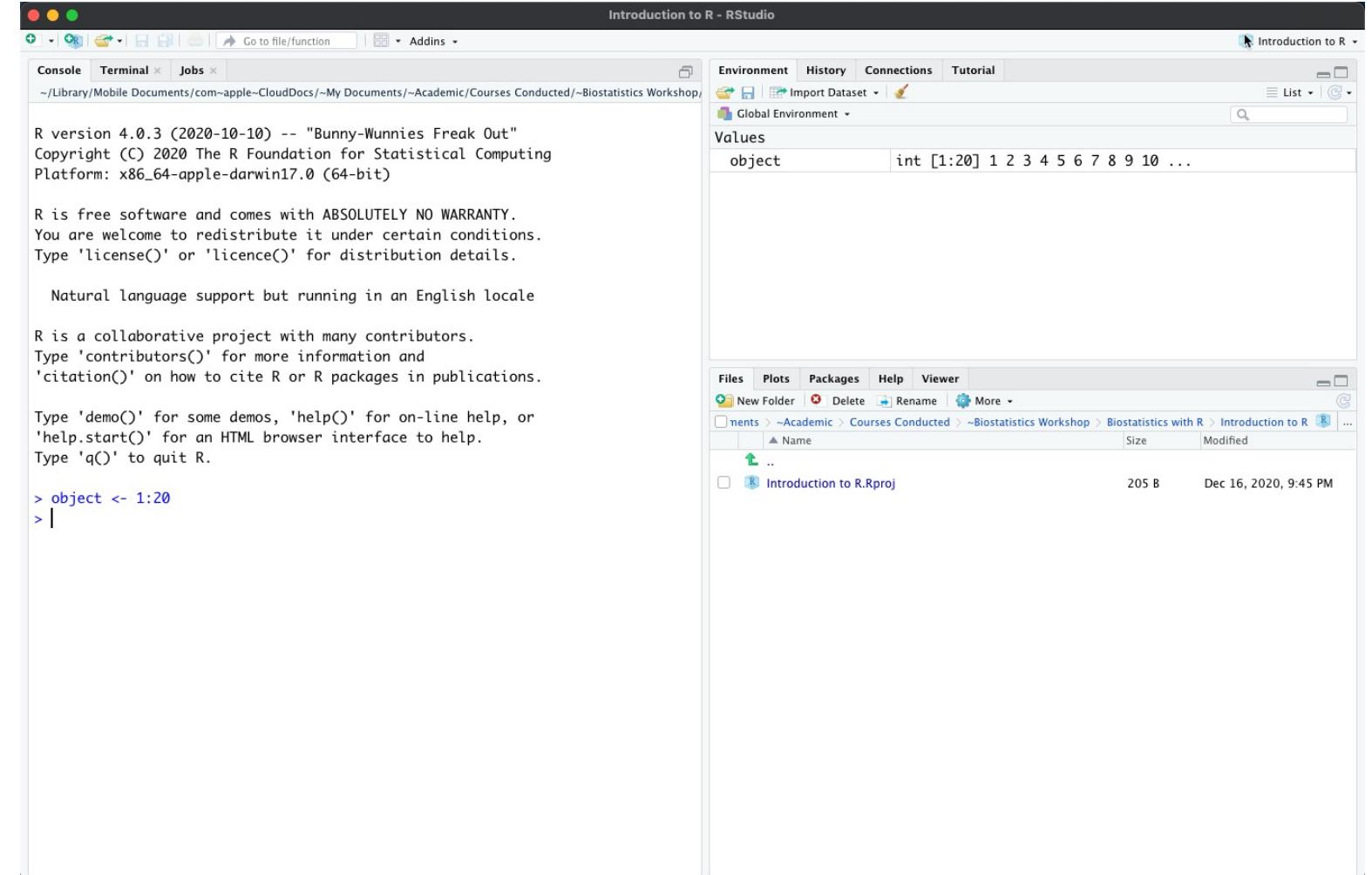
Files Plots Packages Help Viewer

New Folder Delete Rename More

Documents > ~Academic > Courses Conducted > ~Biostatistics Workshop > Biostatistics with R > Introduction to R

Name	Size	Modified
..		
Introduction to R.Rproj	205 B	Dec 16, 2020, 9:45 PM

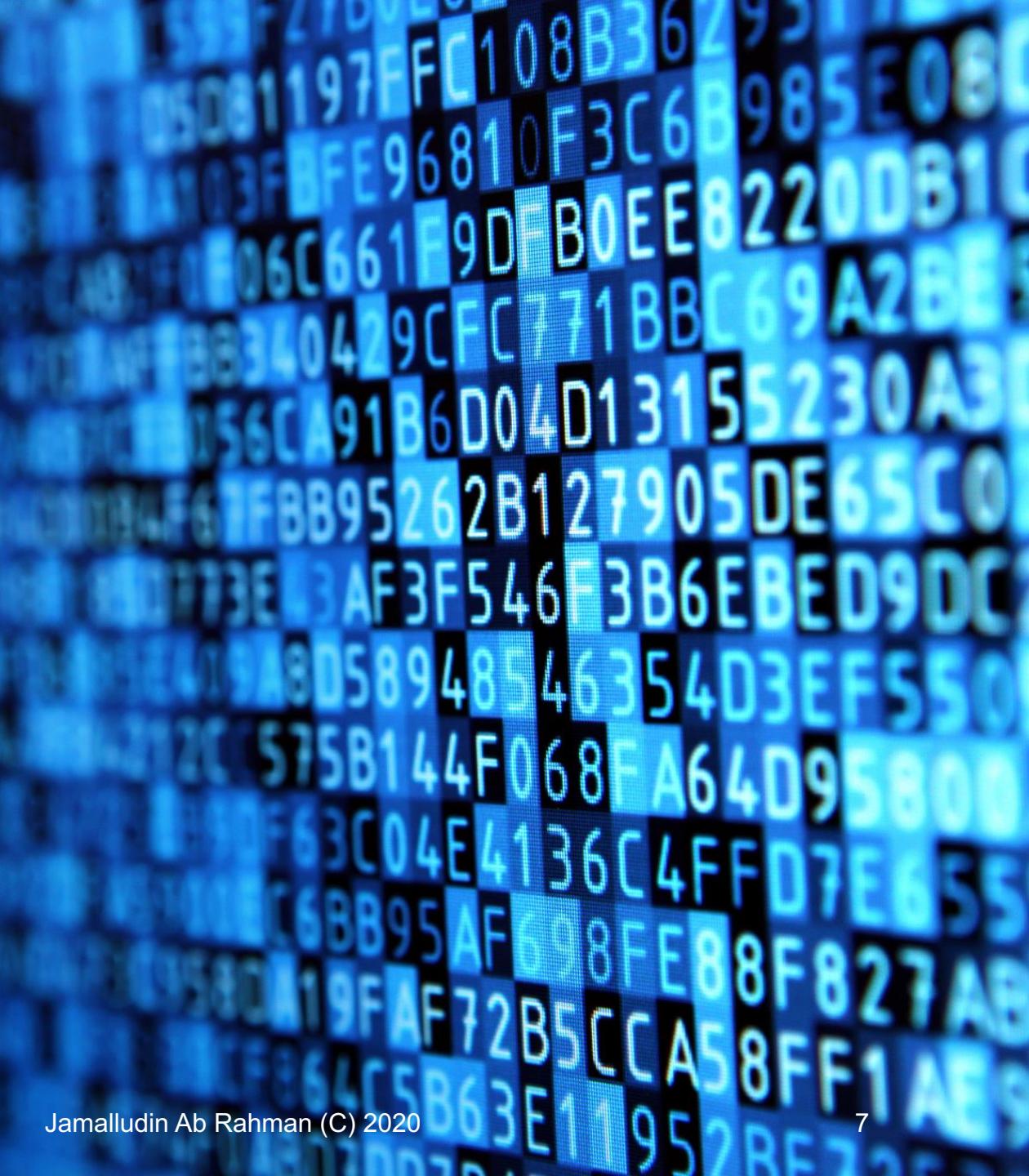
The graphics, packages, file directory



R command structure

Data types

- Vector (Numerical, Integer, Character, Logical, Raw, Complex)
- Matric
- Data frame
- List
- Factor



Starting R programming

- Google is your friend
- Set the working directory
- Packages can make or break you
- Practice, practice, practice

Recommended packages

- `tidyverse`, which contain
 1. `dplyr`
 2. `ggplot2`
 3. `readr`
 4. `forcats`
 5. `stringr`
 6. `purrr`
 7. `tidyr`
 8. `tibble`
- `ggpubr`
- `gtsummary`
- `psych`

